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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/157,758	09/21/1998	RAAFAT EDWARD KAMEL	KAMEL-2-15-1	2883

30594 7590 12/15/2004

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EXAMINER

TON, DANG T

ART UNIT PAPER NUMBER

2666

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/157,758

Applicant(s)

KAMEL ET AL.

Examiner

DANG T TON

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The finality of office action mailed 7/30/2004 is hereby withdrawn.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4,8,9,15,21,and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Takano (newly cited 5,924,043) .

For claim 1, Takano discloses a wireless communications system having a base station (see base station in box 101 of Fig. 1) and a mobile unit (see mobile station in box 102 of Fig 1), a method for setting initial power levels between the mobile unit and the base station upon receipt of a service request, the method comprising the steps of: calculating, at the base station, an interference measure based on the first power, where the first power of a link signal received at mobile unit (see box 103 and e power control error in figure 1) ;

and setting an initial power level in a forward link based on the interference measure (see output power from box 108 based on adjustor box 181 in figure 1).

For claim 2, Takano discloses a method wherein the step of calculating determines a difference between the first power and the second power, where the second power is power of the link signal transmitted from the base station (see box 103 in figure 1).

For claim 4, Takano discloses a method further comprising receiving, at the base station a value of the first power a request for services transmission from the mobile unit (see TPC-BIT in figure 1).

For claim 8, Takano discloses a method further comprising receiving, at the base station a value of the first power in an access channel transmission from the mobile unit (see TPC-BIT in figure 1).

For claim 9, Takano discloses a wireless communications system having a base station (see base station in box 101 of Fig. 1) and a mobile unit (see mobile station in box 102 of Fig 1), a method for setting up a call between the mobile unit and the base station, the method comprising the steps of:

receiving a request for services over an access channel from

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the mobile unit (it is inherent that there is an access request since this system is CDMA);

determining an interference measure based on a first power, where the first power is the power of a link signal received at the mobile unit, a value of the first power being received by the base station over the access channel (see box 103, e power control error, Rec SIR signal and box 106 of figure 1);

and setting an initial power level in a forward link traffic channel transmission based on said interference measure (see box 181 in figure 1).

For claim 15, Takano discloses a wireless CDMA based communications system having a base station (see base station in box 101 of Fig. 1) and a mobile unit (see mobile station in box 102 of Fig 1), a method for setting up a call between the mobile unit and the base station, the method comprising the steps of:

receiving an access probe from the mobile unit (see TPC signal); determining an interference measure based on a first power, where the first power is power of a link signal received at a mobile unit , a value of the first power in the access probe (see box 103 in figure 1);

and setting an initial power in a forward link traffic channel

transmission based on the interference measure (see power signal outputted from box 181 of figure 1 to mobile station box 102) .

For claim 21, Takano discloses a wireless communications system having a base station (see base station in box 101 of Fig. 1) and a mobile unit (see mobile station in box 102 of Fig 1), a method for setting initial power levels between the mobile unit and the base station, the method comprising the steps of calculating an interference measure based on a first power, where the first power of a link signal at the mobile station unit and a second power, where the second power is the power of the link signal transmitted by the base station (see box 103 in figure 1); and a setting an initial power level in a forward link based on said interference measure (see power signal outputted from box 181 of figure 1 to mobile station box 102) .

For claim 22, Takano discloses a method wherein the step of calculating determines a difference between the first power and the second power (see power control error in figure 1) .

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3,5,6,11,12,13,17,18,19,20,23,24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano in view of Love et al.

For claims 3,5,6,11,12,13,17,18,19,20, 23,24, and 25, Takano disclose all the subject matter of the claimed invention with the exception of the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_0 , represents a ratio between energy per chip to interference density as recited in claims 3 11,17,and 23; wherein the interference measure indicates interference levels due to other base station and mobile receive noise as recited in claims 5,12,18, and 24; and wherein the interference measure being linearly related to the initial power level in a communications network as recited in claims 6,13,19, and 25 . Love et al from the same or similar fields of endeavor

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teaches a provision of the mobile unit received pilot power and the base station transmitted pilot power are defined by the ratio E_c/I_o , and wherein each the E_c/I_o , represents a ratio between energy per chip to interference density (see equation 1 in column 3 line 62); the interference measure indicates interference levels due to other base station and mobile receive noise (see other cells at column 3 lines 52-53); and the interference measure being linearly related to the initial power level (see column 4 lines 53-55). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density ; the interference measure indicating interference levels due to other base station and mobile receive noise ; and interference measure being linearly related to the initial power level in a communications network as taught by Love et al. in the communications network of Takano . The TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density ; the interference measure indicating interference levels due to other base station and mobile receive noise ; and interference measure being linearly related to the initial power

level in a communications network as taught by Love et al can be implemented/modified into network of Takano since Takano does teach improved power control in a closes loop communication system and the base station box 101 can perform the functions above. The motivation for using the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density ; the interference measure indicating interference levels due to other base station and mobile receive noise ; and interference measure being linearly related to the initial power level as taught by Love et al. into the communications network of Takano being that it provides a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the forward link capacity, and prevent involuntary dropping of the calls.

5. Claims 7,14,and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano in view of Meidan et al.

For claims 7,14,and 26, Takano discloses all the subject matter of the claimed invention with the exception of the interference measure being monotonically related to the initial power level in a communications network. Meidan et al. from the

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same or similar fields of endeavor teaches the estimated carrier to interference power ratio with a metric at least comprising a monotonically related function (see column 18 lines 41-50).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the monotonically interference measure as taught by Meidan et al. in the communications network Takano . The monotonically interference measure as taught by Meidan et al. can be modified/implemented into the communications network Chen since Chen also disclose the interference measure but not specific using the monotonically interference measure related to the initial power level.

The motivation for using the monotonically interference measure as taught by Meidan et al in the communications network of Takano being that it provides for improving detection of data bits in data samples and a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the capacity prevent involuntary dropping of the calls.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano in view of Nakano et al.

For claims 10 and 16, Takano discloses all the subject matter of the claimed invention with the exception of extracting the mobile unit received pilot power from the transmitted messages in access channel/probe in a communications network. Nakano et al. from the same or similar fields of endeavor teaches the second received data by spreading the data signal by the data channel despreading circuit and obtains received pilot signal by spreading data signal by the pilot channel despreading circuit (see column 5 lines 30-35). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the despreading circuits/extracting circuits as taught by Nakano et al. in the communications network Takano. The despreading circuits/extracting circuits as taught by Nakano et al. can be implemented/modified by connecting the despreading circuit at the base station of Takano since the probe signal received at the base station from the

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mobile station. The motivation for using the despreading circuits/extracting circuits as taught by Nakano et al. into the communications network of Takano being that it provides a system reliable since it is possible to despread the pilot signal and control the transmission power accurately.

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

In the remarks of 10/20/2004, applicant traverses the rejections of the claims. The traversal is based on ground that the references do not teach the power of a pilot signal received at a mobile unit and setting an initial power level in a forward link based on the interference measure. Those arguments are not found to be persuasive. Applicant's attention is directed at power pilot signal TPC outputted from box 181 at the base station to box 102 at the mobile station and REC SIR signal and power control error in figure 1 of Takano wherein it teaches the pilot signal received at the mobile and setting the initial power.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T TON whose telephone number is 571-272-3171. The examiner can

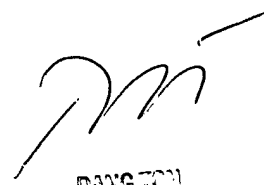
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normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Ton



DAN TON
PATENT EXAMINER